Climate Change and Human Health Literature Portal

National Institute of
Environmental Health Sciences

Climate change and health effects in Northwest Alaska

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Abstract:

This article provides examples of adverse health effects, including weather-related injury, food insecurity, mental health issues, and water infrastructure damage, and the responses to these effects that are currently being applied in two Northwest Alaska communities. BACKGROUND: In Northwest Alaska, warming is resulting in a broad range of unusual weather and environmental conditions, including delayed freeze-up, earlier breakup, storm surge, coastal erosion, and thawing permafrost. These are just some of the climate impacts that are driving concerns about weather-related injury, the spread of disease, mental health issues, infrastructure damage, and food and water security. Local leaders are challenged to identify appropriate adaptation strategies to address climate impacts and related health effects. IMPLEMENTATION PROCESS: The tribal health system is combining local observations, traditional knowledge, and western science to perform community-specific climate change health impact assessments. Local leaders are applying this information to develop adaptation responses. OBJECTIVE: The Alaska Native Tribal Health Consortium will describe relationships between climate impacts and health effects and provide examples of community-scaled adaptation actions currently being applied in Northwest Alaska. FINDINGS: Climate change is increasing vulnerability to injury, disease, mental stress, food insecurity, and water insecurity. Northwest communities are applying adaptation approaches that are both specific and appropriate. CONCLUSION: The health impact assessment process is effective in raising awareness, encouraging discussion, engaging partners, and implementing adaptation planning. With community-specific information, local leaders are applying health protective adaptation measures.

Source: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3198120

Resource Description

Communication: ⊠

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

 A focus of content

Communication Audience: ⊠

audience to whom the resource is directed

 Public

Early Warning System: ⊠

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

 A focus of content

Exposure : ☒

weather or climate related pathway by which climate change affects health

 Extreme Weather Event, Food/Water Security, Food/Water Security

 Extreme Weather Event: Flooding, Landslides

Geographic Feature: ☒

resource focuses on specific type of geography

 Arctic, Ocean/Coastal, Rural

Geographic Location: ☒

resource focuses on specific location

 United States

Health Impact: ☒

specification of health effect or disease related to climate change exposure

 Infectious Disease, Injury, Mental Health/Stress

 Mental Health Effect/Stress: Stress Disorder

Mitigation/Adaptation: ☒

mitigation or adaptation strategy is a focus of resource

 Adaptation

Population of Concern: A focus of content

Population of Concern: ☒

populations at particular risk or vulnerability to climate change impacts

 Low Socioeconomic Status, Racial/Ethnic Subgroup

 Other Racial/Ethnic Subgroup: Inupiat Eskimos

Resource Type: ☒

format or standard characteristic of resource

 Research Article

Resilience: ☒

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

 A focus of content

☐

Timescale: ☒

time period studied

 Time Scale Unspecified

Vulnerability/Impact Assessment: ☒

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

 A focus of content